



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

is comparatively little periodicity. By a series of experimental cultures, carried on partly in Java and partly in the greenhouses at Heidelberg with tropical trees of periodic habit, he has succeeded, by varying the fertility of the soil, in obtaining varying responses from the same species and in greatly prolonging the period of continuous growth. This leads him to conclude that periodicity may be conditioned by the supply of food materials. He also calls attention to the fact that in attempts to relate periodicity to external factors only the more obvious climatic conditions have been considered, and that our data consist largely of comparatively crude observations. More exact studies upon an experimental basis are required. He concludes that the idea of a general primary rhythm in tropical plants, as advanced by SCHIMPER and now supported by VOLKENS and others, is contradicted by one series of facts, is rendered doubtful by other facts, and is supported only by such observations as up to the present time it has been impossible to subject to a searching physiological examination.—GEO. D. FULLER.

Paleobotanical notes.—WHERRY¹⁶ has described three types of fossil wood from the Trias of Pennsylvania. The first, *Araucarioxylon virginianum* Knowlton, has been found previously in North Carolina, Virginia, and Connecticut. The second, *A. vanartsdalenii*, is separated as a new species on the lower medullary rays and predominance of uniserial pitting of the tracheids. The third is referred to the genus *Brachyoxylon* Hollick and Jeffrey, under the name of *B. pennsylvanicum*, because the pits, when uniserial, are usually scattered and circular, and when biserial are either "distant and sub-opposite" or "alternate and hexagonal." This identification seems hardly justified, for the pits in *Brachyoxylon*, when double, are always alternate and closely compressed. Moreover, the most important diagnostic feature of that genus is the formation of traumatic resin canals. Without this reaction, WHERRY cannot properly refer his specimen to the genus *Brachyoxylon*.

In a second paper,¹⁷ WHERRY discusses the evidence supporting the suggestion that the so-called "New Red" may represent deposits from the Lower Carboniferous to the Jurassic, and concludes that while there are no grounds for referring any of these beds to the Paleozoic, the absence of distinctive fossils except those of the Keuper type leaves it an open question whether there may not be also Bunter below and Jurassic above.—R. S. HOLDEN.

Earliest European angiosperms.—Dr. STOPES has described¹⁸ three new genera from the lower Greensand of England, representing the earliest structurally known European angiosperms. The first, *Aptiana radiata*, has vessels

¹⁶ WHERRY, EDGAR T., Silicified wood from the Triassic of Pennsylvania.

¹⁷ ———, Age and correlation of the "New Red" or Newark Group of Pennsylvania.

¹⁸ STOPES, MARIE C., Petrifications of the earliest European angiosperms. Phil. Trans. Roy. Soc. London B 203:75-100. pls. 6-8. 1912.